

DULLES (C.W.)

INDEX
MEDICUS

A NEW BANDAGE FOR FIXATION
OF THE
HUMERUS AND SHOULDER-GIRDLE.

BY
CHARLES W. DULLES, M.D.,

FELLOW OF THE COLLEGE OF PHYSICIANS AND OF THE ACADEMY OF SURGERY
OF PHILADELPHIA; SURGEON TO THE OUTPATIENT DEPARTMENTS OF
THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA, AND OF
THE PRESBYTERIAN HOSPITAL, IN PHILADELPHIA.

FROM
THE MEDICAL NEWS,
August 29, 1885.



THE MEDICAL NEWS.

A National Weekly Medical Periodical, containing 28-32 Double-Columned Quarto Pages of Reading Matter in Each Issue. \$5.00 per annum, post-paid.

UNITING in itself the best characteristics of the magazine and the newspaper, THE MEDICAL NEWS renders a service of exceptional value to the profession. It presents original articles, hospital notes and clinical lectures by the ablest writers and teachers of the day, discusses living topics editorially in a clear and scholarly manner, and employs all the recent and approved methods of medical journalism—the telegraph, reporters and a corps of special correspondents covering all the medical centres of the globe. It thus imparts, without loss of time, all advances of knowledge attained in the medical sciences. In short, it is the effort of all concerned in the publication of THE NEWS that it shall be indispensable to every physician in active practice.

The American Journal of the Medical Sciences.

Edited by I. MINIS HAYS, A.M., M.D.

Published quarterly, on the first of January, April, July and October. Each number contains over 300 large octavo pages fully illustrated. \$5.00 per annum, post-paid.

IN his contribution to *A Century of American Medicine*, published in 1876, Dr. John S. Billings, U. S. A., Librarian of the National Medical Library, Washington, thus graphically outlines the character and services of THE AMERICAN JOURNAL—"The ninety-seven volumes of this Journal need no eulogy. They contain many original papers of the highest value; nearly all the real criticisms and reviews which we possess; and such carefully prepared summaries of the progress of medical science, and abstracts and notices of foreign works, that from this file alone, were all other productions of the press for the last fifty years destroyed, it would be possible to reproduce the great majority of the real contributions of the world to medical science during that period."

COMMUTATION RATE.—Postage Paid.

THE MEDICAL NEWS, published every Saturday,	} in advance, \$9.00.
THE AMERICAN JOURNAL OF THE MEDICAL	
SCIENCES, quarterly,	

LEA BROTHERS & CO., PHILADELPHIA.

A NEW BANDAGE FOR FIXATION OF THE HUMERUS AND SHOULDER-GIRDLE.

IN the treatment of injuries about the shoulder-joint, such as luxation, contusion, fracture of the clavicle, or of the acromial end of the scapula, etc., I have often felt the need of some form of bandage, which, while as efficient as the Velpeau or Desault bandage, should be less cumbrous; and I have been led to try various modifications of these until I hit upon a way of bandaging which has been so satisfactory to me and to my patients that I wish to bring it to the notice of my professional brethren, and to obtain their judgment upon its merits.

This form of bandage requires, for an adult, a roller about three and a half inches wide, and about ten or twelve yards long. It is applied as follows:

The arm of the injured side should be placed against the chest-wall, almost in the perpendicular line, but with the elbow a little in advance, and the forearm flexed at a right angle and laid across the lower part of the chest.

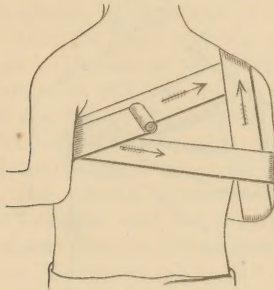
A large piece of lint, or a soft towel, or a piece of old muslin, should now be interposed between the arm and the body, going well up into the axilla,

so as to prevent the excoriation which usually results from the apposition of two skin surfaces.

Then the surgeon, standing behind the patient, and a little toward the injured side, should apply the initial end of the roller to the axilla of the sound side, and carry the bandage diagonally across the back to the top of the shoulder of the injured side; then straight down the front of the arm to the point of the elbow; then under this to the back of the arm; then up behind the arm to the shoulder, where the preceding turn crossed it. At this point a firm pull should be made on the bandage, to draw the humerus well up against the glenoid cavity. In cases of fracture of the clavicle or scapula, this piece can easily be regulated so as, with the aid of a little manipulation, to place and keep the ends of the bone in position. Then the bandage is to be carried diagonally across the front of the chest to the axilla of the sound side; then through this axilla to the back; then horizontally across the back to the lower third of the arm of the injured side, and round this to the front of the arm; then across the front of the chest to the axilla of the sound side, leaving the forearm out; then through this axilla to the back near the point of starting. The appearance of the bandage when one complete circuit has been made is shown (back and front views) in Figures 1 and 2. The bandage is completed by repetition of these turns till the roller is used up, advancing with each turn a little way up on the shoulder, and a little way up on the arm. If one roller does not suffice to give the support desired, of course a second must be added (Fig. 3).

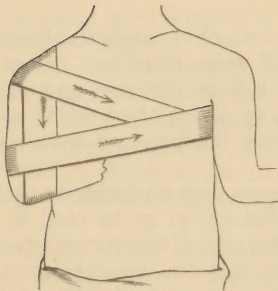
After the bandage is in place a few large pins should be inserted at each crossing, and the hand and

FIG. 1.



Back view.

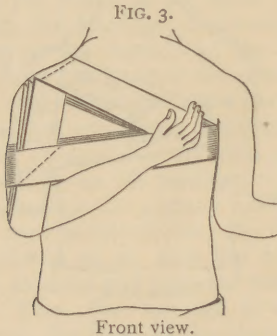
FIG. 2.



Front view.

forearm should be supported by a sling. In addition to the pins, the bandage may be stitched so as to

make a firm case ; or a few strips of adhesive plaster may be applied along and across it in different places, which will give the greatest possible security. It is



a good plan to attach a strip of adhesive plaster, an inch and a half wide, from just below the shoulder, over the outer side of the arm and round the point of the elbow, to about the middle of the forearm. This will prevent the bandage from slipping off the elbow.

In certain cases it is advisable to include the forearm in the bandage, so as to bind it firmly to the chest-wall. But one of the special advantages of this method, in my opinion, depends upon the fact that it can usually be employed without including the forearm.

This form of bandage accomplishes the following results : It fixes the scapula and the outer end of the

clavicle, holds the head of the humerus well up against the glenoid cavity, and fixes the whole bone against its natural splint, the chest wall. Among its advantages the most important, in my opinion depends upon the exactness with which, by drawing up the humerus in the line of its axis, the bone and the shoulder-girdle can be held in a position in which there is the least muscular interference with the proper position of the fragments in a fracture of the scapula or clavicle, or of the different bones in a luxation at the shoulder-joint. I find that, with a little manipulation with my free hand, and careful regulation of the upward pull upon the humerus and the downward pressure upon the scapula or clavicle, by means of the bandage as it goes along, I can get all that I can ask for in the way of correct anatomical relation of parts. The position of the humerus, which I have indicated, is also, I believe, a better one than that which is maintained by the bandage most frequently employed—I mean the Velpeau bandage.

The comparative lightness of this dressing is also an advantage, as well as the fact that it leaves the upper and lower ends of the arm uncovered, so that they may be examined at any time, or have applications made to them. The freedom of the forearm I have already alluded to as an advantage whenever it is admissible.

There is no danger of the bandage slipping, if it be snugly and firmly applied, and if it be wide enough. It is easy to make it fit nicely at the elbow, so as to hold this in a sort of cup made by the slight elasticity of the material.

It is also easy, by varying the position of the turns,

to make the bandage cover any particular point in the scapula, or in the outer end of the clavicle, or in the humerus. In fractures of the clavicle, or scapula, a suitable compress may be placed over the seat of fracture; while, in any fracture of the humerus, to which such a dressing is suitable, the arm may be splinted against the chest-wall by carrying the horizontal turns high up.

I will not attempt to speak of the conditions to which this form of bandage is applicable, but I think they are all those in which fixation of the arm and shoulder-girdle is the important object.

I am aware that it is somewhat dangerous to call anything new in these days, but I have so designated the bandage I have just described, because I have not met with any description which corresponds to it. If I am mistaken, I shall be happy to be corrected.

3932 LOCUST STREET, PHILADELPHIA.